Technology in Ethiopian Schools

Connecting Children from Various Cultures

By Judit Szente

Imagine students in the middle of Africa, who spend their lives herding animals or working for a living. They are five, six, or nine, but only some have the opportunity to go to school. And even fewer students have the opportunity to learn about other parts of the world.

Then imagine that one day some people show up in their village or city and start opening their worlds to learning while they introduce some aspects of the "mystical" technology. And students will have the opportunity to see and learn from other students while they also learn skills that will help them make a better living for themselves and their families.

This scenario actually happened as a result of a U.S. Agency for International Development (USAID) project in Ethiopia. The project originated with Dr. James L. Hoot from the University at Buffalo in 2000. It was designed to use technology as a vehicle to improve primary education in Ethiopia. Since 2002, two primary schools in the capital, Addis Ababa, have received assistance to establish self-sustaining, technology-based learning environments for students and their teachers. Such unique plans are also underway in the southern rural area of the country surrounding Dimtu, approximately eight hours south of Addis Ababa.

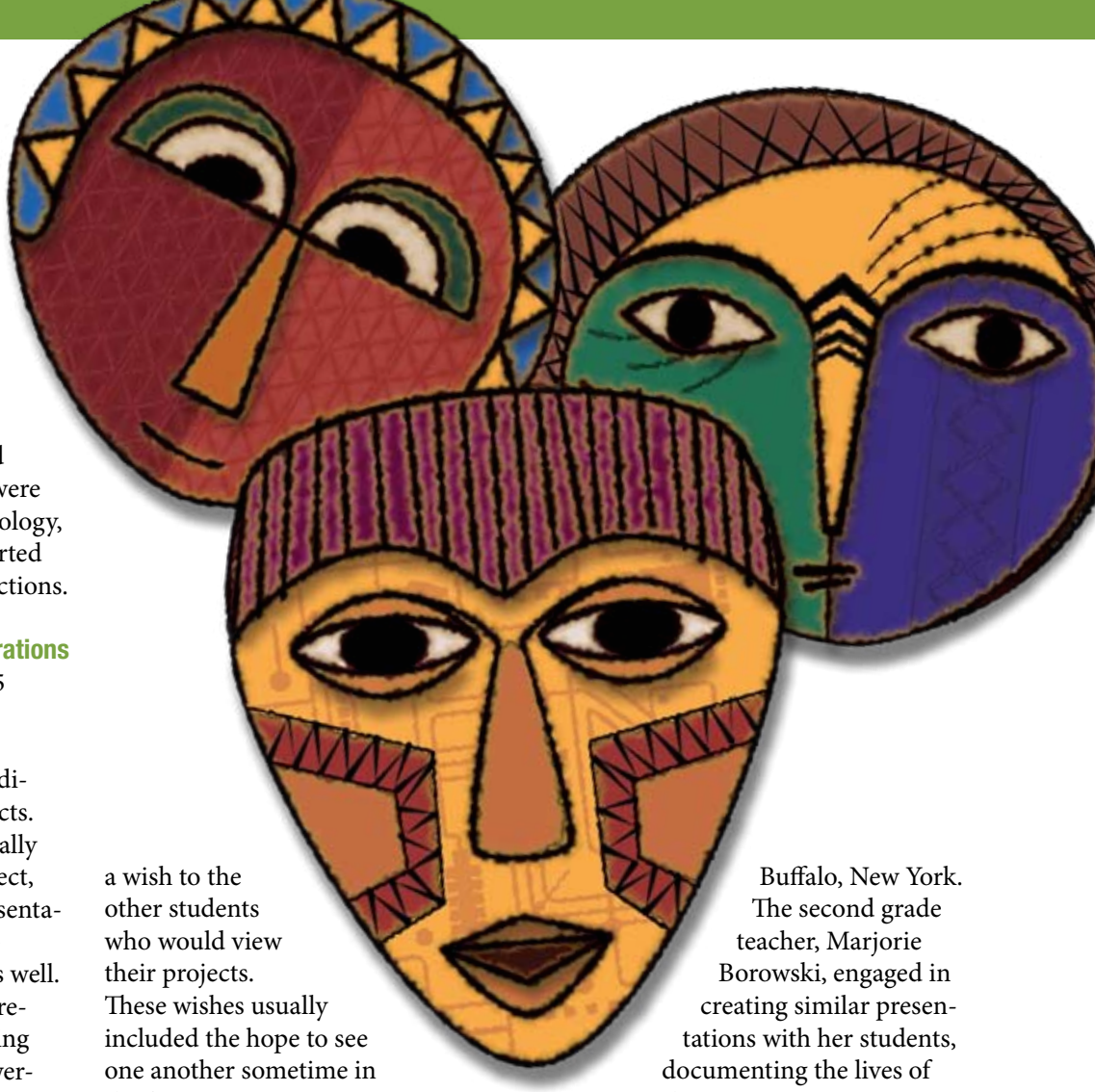
Based on several consultations with project participants over the years, a government and a public school were selected for the collaboration. Both schools are representative of their kind. The government school is the poorest, with the least support. The public school is supported by a board of parents who are responsible for everything regarding the operation of the school (from financial to instructional). The government school enrolls about 2,400 students in kindergarten through eighth grade who attend school in two shifts because of lack of classrooms and teachers. The teacher:student ratio varies, but it is typical to see 1:60 in a classroom. According to its director, approximately 50% of the students are orphans to HIV/AIDS or are homeless. The public school enrolls approximately 1,600 students. Parents are required to pay tuition to provide students with better educational opportunities. In this school, classroom sizes do not exceed 50 students per teacher in kindergarten through ninth grade.

Each school received USAID support to establish a state-of-the-art computer lab furnished with 32 computers, printers, scanners, projectors, digital cameras, and camcorders. In addition, each school was also provided with Internet access. An educational technology professor from the University at Buffalo in New York, Elaine Casler, provided administrators and teachers with computer training (e.g., Microsoft Word, PowerPoint) and introduced participants to e-mail and the Internet. On-site technology coordinators were also trained to ensure ongoing support during the school year.

After the initial training, teachers started to work with students and continued learning about the integration of technology into their teaching. Computers were no longer intimidating. Teachers became eager to demonstrate the projects they developed, and started to view computers as tools to bring a new angle to their teaching practices.

Besides the numerous documented benefits of educational technology, such as changing traditional instructional methodologies as well as academic and social/emotional enrichment, the project also intended to provide students with two additional benefits. In a country where nearly half of the population is below the poverty line and the average per capita income is approximately 1,400 Birr ($160 U.S.), students need unique and competitive skills to be able to survive and succeed later on in their lives. Through computer training and becoming familiar with digital technology, students in the project are able to work with businesses and participate in collaborations such as creating wedding invitations, brochures, and business cards. Besides generating means to ensure the self-sustainability of the computer labs, students also learn essential skills for becoming successful in the 21st century world of work, skills they would not be able to acquire otherwise because of lack of opportunities.

As the months passed, students were eager to showcase the business cards and brochures they developed. After they became comfortable with the initial projects, students were given another unique assignment, one that enabled them to connect with students in other parts of the



world. Up to this point, they did not believe such opportunities were possible. With the help of technology, however, Ethiopian students started to establish international connections.

Creating Cross-cultural Collaborations

At the beginning of the 2004–05 school year, Ethiopian students were invited to document their lives, customs, routines, and traditions through multimedia projects. This was the first time they actually engaged in such a complex project, which included PowerPoint presentations and digital photography—sometimes digital movie clips as well.

Both schools in Addis Ababa received basic instructions regarding the content/structure of the PowerPoint presentations, and students worked with their on-site technology coordinators to create their projects. Students at the rural Dimtu area also joined the project and worked with additional personnel to digitally document their lives.

Themes for the presentations included introduction of themselves, their families, friends, house, school, daily routines, hobbies, favorite food, and ways to get to their school. The presentations consisted of approximately 20 slides, including 15–20 pictures and their narratives. On the last slide, each child had the opportunity to end their presentation with a wish to the other students who would view their projects. These wishes usually included the hope to see one another sometime in the future.

This multimedia project enabled students to study themselves and their own culture and to document their daily life with digital photos. In some instances, they also recorded digital video. In addition to their creative skills, they were able to enrich their academic skills, from English as a second (or third) language to social studies. Students had the opportunity to reorganize, edit, and reflect on their presentations before they were considered completed.

As the projects developed, they were shared with a U.S. primary school, the King Center Charter School in Buffalo, New York. The second grade teacher, Marjorie Borowski, engaged in creating similar presentations with her students, documenting the lives of students in an inner-city setting in North America. Themes were kept identical to provide ways for future collaborative activities such as comparing/contrasting lives and developing unique academic enrichment opportunities for students.

The projects were shared by e-mail or regular mail, but plans are underway to host projects on the Web—which would allow easy access to the projects. Future plans also include allowing students to share academic learning, such as math, social studies, and geography. With the help of educational technology, the world is no longer closed for Ethiopian students.

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Students shared aspects of their daily lives and culture through the presentations.

They are able to unleash their potential for learning while developing essential skills and understandings.

Sample Project Slides and Ideas for Using Them in the Classroom

Below are some practical ideas for cross-curricular and cross-cultural comparisons with the help of PowerPoint presentations. The ideas are endless as teachers and students start viewing the slides and create academic learning opportunities based on them.

The various discussion and research activities that can be developed after viewing this slide include geography, climate, cities/towns, agriculture, architecture, family structures, names, clothing, everyday living, basic skills, basic needs, and basic human rights.

Additional discussion and research activities that can be developed after viewing this slide include architecture and school building types, school routines, student responsibilities, comparison of various subjects, ways to get to school, resources for schools and teachers, classroom sizes, and in-school behavior.

Students work individually, in groups, or as a whole class on these projects. They use various ways to conduct their research and present/report their findings. And they select topics of interest and conduct more in-depth research on those areas to share with the class later. In addition, students also study digital photography and develop their skills in educational technology and creating multimedia projects for learning.

Closing Thoughts

Nobody questions the importance of appropriate computer knowledge for today's students to be successful in life—no matter where they are in the world. With such multimedia presentations and digital imaging, students are not only able to develop their skills in academics, critical and higher-order thinking, creativity, and communication, but they are also able to increase their potential for cross-cultural understanding. As students develop respect for cultural diversity, there is a growing hope for the development of peace among the nations as well. Such developments would not have been possible for Ethiopian students without their exposure to educational technology.

Judit Szente, PhD, has a background in early childhood/elementary education and English as a second language. She served as the research/technology consultant for the USAID project she described here. Currently she is an assistant professor of early childhood at the University of Central Florida.